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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/075,152 05/08/98 MORLEY

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EXAMINER

023696
Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego CA 92121-1714

WM01/1012

BROWN, R
ART UNIT

PAPER NUMBER

2611
DATE MAILED:

10/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/075,152

Applicant(s)

MORLEY ET AL.

Examiner

Brown M. Reuben

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-135 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-135 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: /

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 46-47 & 113-114 are rejected under 35 U.S.C. 112, 2nd paragraph for lacking antecedent basis. Claims 46 & 113 recites the limitation "said central storage system" in line 2. There is insufficient antecedent basis for this limitation in the claims. Claims 47 & 114, depend from claims 46 & 113, respectively.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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2. Claims 1-2, 4-5, 9, 14, 20, 22-23, 27-29, 33-36, 38-45, 48, 61-62, 64-65, 68-71, 73-74, 78, 82, 87, 89-90, 94-96, 100-103, 105-112, 115, 126-127, 129 & 132-133 are rejected under 35 U.S.C. 102(e) as being anticipated by Gulla, (U.S. Pat. # 6,169,877 B1).

Considering claims 1 & 70, the claimed apparatus and method for distribution of digitized still or motion picture image, to viewing locations comprising at least one central facility for receiving and compressing digitized images according to a preselected format and transferring the resulting compressed images to one or more remotely located presentation system, reads on the operation of the Control Center 3 in Gulla, which receives and transmits motion pictures, see (Abstract; Fig. 1; Fig. 2; col. 3, lines 50-60 & col. 4, lines 1-15). Gulla teaches that the motion pictures may be compressed and encoded according to MPEG-1 or MPEG-2 protocols.

The claimed presentation system comprising a means for receiving and storing the transferred image information for presentation at at least one preselected time is met by the operation of the receiver terminals 4, which receive the digital transmissions through satellite receiver 20 and at least temporarily stores them in digital recording device 22, see col. 4, lines 35-55 & col. 5, lines 44-60. Gulla discloses that the receiver terminals 4 may be cinema halls or movie theaters which receive and reproduce motion pictures via satellite distribution, rather than the conventional manner of tape or reel copies, see col. 1, lines 30-65 & col. 3, lines 1-15.

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The claimed presentation system comprising means for distributing stored compressed images to one or more decompression units, which decompress the stored images and at least one projection which receives the decompressed images and presents them to one or more viewers is met the decoder 23 and motion picture projection unit 25, see col. 4, lines 35-40; col. 5, lines 42-46 & col. 5, lines 18-25.

Considering claims 2 & 71, the elements disclosed in Gulla that are discussed in the analysis of claim 1, with respect to the transmission/reception and display of video information inherently includes the transmission/reception of audio information, also see col. 7, lines 12-15.

Considering claims 4-5 & 73-74, Gulla discusses the use of MPEG encoding which inherently includes variable bit rate encoding.

Regarding claims 9 & 78, the system in Gulla inherently generates images in a digital format.

Considering claims 14 & 82, Gulla inherently stores compressed audio/video at a central facility prior to transmission to remote locations.

Considering claims 20 & 87, Gulla discloses that the video may be watermarked with certain indicia for security purposes, see col. 5, lines 61-67 thru col. 6, lines 1-5.

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Considering claims 22 & 89, Gulla discloses the modulation and transmission of video data over a wireless (satellite) link between the control center 3 and the receiver terminals 4, see Fig. 1 & col. 4, lines 8-14.

Considering claims 23 & 90, in Gulla the compressed video data is transmitted to a any one or more of a plurality of receiver terminals at various remote and separate cinema halls, col. 5, lines 18-25.

Considering claims 27 & 94, Gulla discloses the use of satellites in order to transmit video data, see Fig. 1, Fig. 2 & Fig. 3.

Considering claims 28 & 95, Gulla discusses that the system includes means for monitoring the quality of satellite transmissions to receiver terminals, in order to ensure transmission quality, (col. 2, lines 55-58; col. 4, lines 23-28; col. 5, lines 1-6; col. 6, lines 46-58).

Considering claims 29 & 96, Gulla discloses two-way transmission, col. 5, lines 18-30; col. 6, lines 54-58.

Considering claims 33 & 100, see Gulla col. 6, lines 47-64.

Considering claims 34-35 & 101-102, Gulla teaches a two-way transmission system, which may include a telephone link, see col. 4, lines 27-34 & Fig. 2.

Considering claims 36 & 103, Gulla discloses the use of packet technology, col. 5, lines 1-15.

Considering claims 38-39 & 105-106, Gulla discloses that the system includes two-way transmission over a satellite connection, which reads on two-way wireless; see Fig. 2 & Fig. 3.

Considering claims 40-41 & 107-108, Gulla is directed to a network management system for managing a network of presentation systems, using an operational control of the presentation systems; see Abstract & col. 2, lines 26-65.

Considering claims 42-43 & 109-110, Gulla teaches transmission of compressed information to a preselected set of auditoriums; col. 1, lines 5-14 & col. 5, lines 22-24.

Considering claims 44 & 111, Gulla discloses the use of a means for preventing non-authorized copying of images, col. 5, lines 61-67.

Considering claims 45 & 112, Gulla discloses the use of memory erasure of video information when a non-authorized physical intrusion is detected, col. 6, lines 10-18.

Considering claims 48 & 115, the transmitted video in Gulla may be used to create presentation events in at least one auditorium.

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Considering claims 61 & 126, Gulla at col. 1, lines 5-14 meets the claimed features.

Considering claims 62 & 127, Gulla discloses the use optical fiber technology, col. 2, lines 15-18.

Considering claim 64, Gulla discloses transfer of video information using satellite transmission, which reads on wireless transmission.

Considering claims 65 & 129, Gulla discloses the very old art of storing motions pictures on a transportable storage medium and transferring to presentation systems, col. 1, lines 355-45.

Considering claims 68-69 & 132-133, Gulla discloses that video presentations may be stored or archived both at a central facility or receiver system; col. 3, lines 54-58 & col. 5, lines 55-60.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 7-8, 72 & 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla, in view of Harper (U.S. Pat # 5,585,858).

Considering claims 3, 7-8, 72 & 76-77, Gulla teaches that audio/video information is distributed to a plurality of remote sites, but lacks teaching storing the audio independent of the video. Harper, which is in the same field of endeavor, i.e., the distribution of movies over a telecommunications network, teaches a receiving program box 600 which stores audio separately from video in the Audio memory 702, Fig. 3. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla storing audio separately from video for the desirable advantage of enabling the operator at the receiver to choose between various audio segments, as taught by Harper, (col. 5, lines 64-67; col. 6, lines 49-61). As for claims 7-8 & 76-77, Harper teaches that the audio segments comprised of multiple audio tracks are transmitted, whereas at least one segments are synchronized with the video.

4. Claims 6, 10-13, 75, 79-81, 21, 24-26, 31-32, 37, 46-47, 63, 66-67, 88, 91-93, 98-99, 104, 113-114, 128, 130-131 & 134-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla.

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Considering claims 6 & 75, Gulla teaches that the Control Center 3 may receive video information from a live recording event via a Transport Unit 1, see col. 3, lines 50-64. Gulla furthermore discloses that video images may be transmitted from the control center 3, to the presentation systems 4 utilizing MPEG compression, but does not explicitly state that MPEG may be utilized to compress video images for transmission from the Transport Unit to the Control Center 3. It would have been obvious for one ordinary skill in the art at the time the invention was made to modify Gulla by utilizing MPEG for encoding video data from the Transport Unit, at least for the desirable benefit of a well known encoding technique that is compatible with the Control Center 3 system.

Considering claims 10 & 79, official notice is taken that digital cameras were well known in the art at the time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the well-known feature of a digital camera, at least for the desirable improvement of initially generating a more easily editable video format, than the conventional analog format.

As for claims 11 & 80, Gulla discloses that the invention is applicable to the transmission of live video; see col. 7, lines 52-64.

Considering claim 12, Official Notice is taken that telecine movies were very well known in the art at the time the invention was made. It would have obvious for one of ordinary skill in

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the art at the time the invention was made, to utilize telecine format at least for the known benefit of its known quality of images.

Considering claims 13 & 81, Gulla teaches that video images may at least be generated in the transporter units 1, see Fig. 1 & col. 3, lines 54-60, but fails to especially discuss the use of computer workstation in the process. Official Notice is taken that at the time the invention was made, computer workstations were very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla to use a computer workstation in generating video images for the well-known advantages of a more efficient process.

Considering claims 21 & 88, Gulla discloses introducing the location of a terminal as a watermark in a video reproduction for security purposes, but does mention the inclusion of a presentation time. Gulla teaches that the control center 3, monitors the operation of video reproducing apparatus at its corresponding presentation systems, see col. 2, lines 57-60 & col. 3, lines 61-64. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla to also include the time of presentation as a watermark, as an additional security feature.

Considering claims 24-25 & 91-92, Gulla teaches that the chosen data flow of 34- 45 Mbits/sec is obtained by compressing the original image, with a certain algorithm; see col. 6, lines 34-40. Thus the transmission bit rate corresponds with the compression rate, however

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Gulla does not explicitly state that it is a direct correspondence. Furthermore, Gulla discloses that the signal transmission rate of 34-45 Mbits/sec is selected according to the desired image quality. Official Notice is taken that at the time the invention was made it was well known in the art to design transmission systems which trade-off between the amount image compression and transmission bit rates/bandwidth. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in a manner wherein (within a given threshold range) the compression bit rate decreases, for instance as the transmission bit rate increases, thereby increasing the image quality of the delivered video information.

Considering claims 26 & 93, Official Notice is taken the numerous error detection algorithms, such as adding a checksum to transmitted data, was old in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in manner wherein checksum technology is used, in order to ensure video data is correctly received by the receiving system.

Considering claims 31-32 & 98-99, Gulla teaches that if a packet is received which is below a certain quality threshold, and then the receiver terminal provides for its substitution, col. 6, lines 17-28. However Gulla does not explicitly disclose the use of request-retransmission technology. Official Notice is taken that request-retransmission was very well known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in a manner utilizing the request

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retransmission technique, at least for the known benefits of an efficient protocol for ensuring the receiver only decodes image data above a certain threshold.

Considering claims 37 & 104, Gulla fails to disclose the use of the Internet in distributing video information. Official Notice is taken that the use of the Internet was very well known at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla in order to additionally/alternatively transmit video data over the Internet, at least for the known desirable improvement of reaching a wider audience.

Considering claims 46-47 & 113-114, the instant claims are interpreted as best understood, in light of the above 112 rejection. Gulla discloses the use of multi-room cinema halls as an advantage for remotely simultaneously transmitting a live or recorded video program, to more individuals than a single room cinema hall, col. 7, lines 52-65. As for the additional claimed feature of simultaneously or staggering the time of delivery to some of the cinema halls, Official Notice is taken that at the time the invention was made, it was well known to provide video information to a plurality of destinations according to a schedule. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to transmit video data to a plurality of different auditoriums within a cinema hall, according to a schedule at least for the desirable improvement of a more flexible system.

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Considering claims 63, 128 & 134, Official Notice is taken that at the time the invention was made using a high speed wire/coaxial cable network to transmit video data was well-known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to utilize high-speed wire transmission, at least in order to take advantage of existing hardware.

Considering claims 66-67 & 130-131, Official Notice is taken that optical and magnetic storage means were very well known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to utilize optical and/or magnetic storage means at least for the well-known high-density storage capacities.

Considering claim 135, Official Notice is taken that at the time the invention was made, designing a system with redundant apparatus was very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the known technique of redundant design, at least for the known improvement of a more reliable system.

5. Claims 15-19, 30, 83-86 & 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla as applied to claims 2 & 71 above, and further in view of Banker, (U.S. Pat # 6,005,938).

Considering claims 15, 30, 83 & 97, even though Gulla discusses controlling communication between the satellite and the receiver terminal (col. 7, lines 25-31), the reference fails to discuss the well-known feature of encryption/decryption of video data transmitted over a network. However, Banker is directed to such a technology, Abstract. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the known technology of encryption/decryption for the desirable improvement of ensuring that only authorized receivers are enabled to process the received video data, as taught by Banker, col. 1, lines 30-45.

Considering claims 16-17 & 84, encryption/decryption technology such as in Banker, necessarily operates by transmitting a key to the receiver system. Also Banker teaches that the session key may be transmitted to the receiving system at a time separate from the transfer of the encrypted information, see col. 1, lines 37-67.

Considering claims 18 & 85, Banker teaches a system that includes a time interval for the valid use of a session key, which avoids receiving using session for indefinite periods of time without appropriate pay or authorization, see col. 2, lines 24-65; col. 3, lines 5-30 & col. 4, lines 40-58.

Considering claims 19 & 86, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Banker to overwrite

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invalid decryption key information for the desirable advantage of re-using its memory, thereby conserving storage capacity at the receiver.

6. Claims 49-60 & 116-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla as applied to claims 40, 48, 107 & 115 above, and further in view of Budow, (U.S. Pat # 5,521,6310).

Considering claims 49-50 & 116, Gulla teaches a storage means for storing at least one transmitted video program & that it is desirable to maintain a cinema hall with a plurality of rooms, col. 5, lines 55-64 & col. 7, lines 55-64. However, Gulla does not teach that the storage means may comprise a data bank comprising an array of magnetic storage devices, which may be shared by multiple auditoriums. Nevertheless, Budow discloses a system wherein video data is transmitted to a video server 12 within a particular establishment, such that the video server is shared by a plurality of rooms within the establishment, Abstract & col. 9, lines 1-60. The plurality of rooms in Budow corresponds with the plurality of auditoriums recited in the claims, since they are both directed separate locations for distributing video information within a single physical establishment. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the system of Gulla with a means for sharing a storage device between a plurality of presentation rooms, at least for the benefit of efficiently providing the same video program to a plurality of destinations within a single establishment, as taught by Budow, (col. 2, lines 3-65 & col. 4, lines 1-20).

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As for claims 50 & 116, Budow discusses the use of an array of hard disk storage devices, col. 4, lines 11-14 & col. 9, lines 5-20. It would have been obvious for one of ordinary skill in the art at the time the invention was made, and one would have been motivated to modify the combination of Gulla & Budow to utilize magnetic storage device for the well-known benefits of high capacity storage.

Considering claims 51-52 & 117-118, Official Notice is taken that at the time the invention was parallel striping of an array of video discs was very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Budow with the well known technique of parallel striping at least for its well known benefits of efficiently off-loading a plurality of video programs substantially simultaneously from a plurality of discs.

Considering claims 53 & 119, Gulla teaches storing a viewing history of authorized programs and transmitting the history of projections to a central facility, col. 6, lines 65-67 thru col. 7, lines 1-5.

Considering claims 54 & 120, Budow teaches that the customer rooms, which correspond with auditoriums recited in the claims, are controlled and monitored by the systems control computer, col. 3, lines 28-60 & col. 10, lines 18-67.

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Considering claims 55 & 121, the claimed created program sets reads on the user in Budow enabled to order a programming from a menu of programming, col. 11, lines 59-65; col. 12, lines 25-61 & col. 13, lines 29-52.

Considering claims 56 & 122, the video server is enabled automatically distribute, store and present video programming under programmable control from a central facility, (col. 6, lines 50-65; col. 7, lines 63-67 & col. 9, lines 38-45 & col. 9, lines 65-67).

Considering claims 57-58 & 123-124, it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Budow with the known feature of controlling various operations within a network from devices not located at a central facility, at least for the desirable advantage of a more flexible system.

Considering claims 59-60 & 125, Budow teaches a local video server network which distributes stored video data to one or more of a plurality of rooms, which corresponds with the claimed auditoriums.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Guido, Ruybal & Osborne Teach distribution of motion pictures over a telecommunications network to a plurality of remote locations.

B) Balakrishnan, Sun Teaches variable bit rate encoders, see Abstract & col. 4, lines 24-62.

C) Haigh Teaches synchronizing an audio stream with a video stream.

D) Peterson Teaches encryption technology, as well as access as a function of time.

E) Moskowitz Teaches the use of watermarking technology.

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Any response to this action should be mailed to:

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(703) 872-9314, (for formal communications intended for entry)

Or:

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*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Brown M. Reuben whose telephone number is (703) 305-2399.
The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the
organization where this application or proceeding is assigned is (703) 872-9314 for regular
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is (703) 305-
4700.



ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600